



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D3910-1

Job Sheet 199738



Part No: D3910-1

Job Qty: 4 pcs

Part Name: Crosstube Lug



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 8/29/19

Job Tracking No:

Created By: Kimberley Guerin

Due Date: 8/30/19

Description:

Type: Stock

Note: D3910 REV.E IPP REV:C 18.02.02 REMOVE FINISH DD VERF:JFS

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard Setup Hrs	Run Hrs	Workcenter/Supplier	Sign-off
110	Purchasing	4 pcs	8/30/19	8/30/19	0.00	0.00	Purchasing - 1	AC AUG 30 2019
							Purchasing - 2	
							Purchasing - 3	
120	Packaging 2-1 - Receive - B4B	4 pcs	8/30/19	8/30/19	0.00	0.00	Packaging 2 - 1 - B4B	
							Packaging 2 - 2 - B4B	
							Packaging 2 - 3 - B4B	
							Packaging 2 - 5 - B4B	AC AUG 30 2019
							Packaging 2 - 4 - B4B	
							Packaging 2 - 6 - B4B	
							Packaging 2 - 7 - B4B	
							Packaging 2 - 8 - B4B	
							Packaging 2 - 9 - B4B	
							Packaging 2 - 10 - B4B	
							Packaging 2 - 11 - B4B	
							Packaging 2 - 12 - B4B	
							Packaging 2 - 13 - B4B	
							Packaging 2 - 14 - B4B	
							Packaging 2 - 15 - B4B	
							Packaging 2 - 16 - B4B	
							Packaging 2 - 17 - B4B	
							Packaging 2 - 18 - B4B	
							Packaging 2 - 19 - B4B	
							Packaging 2 - 20 - B4B	
							Packaging 2 - 21 - B4B	
							Packaging 2 - 22 - B4B	
							Packaging 2 - 23 - B4B	
							Packaging 2 - 24 - B4B	
							Packaging 2 - 25 - B4B	
							Packaging 2 - 26 - B4B	
							Packaging 2 - 27 - B4B	
							Packaging 2 - 28 - B4B	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S210504



Part: D3910-1

Job No: 199738

Serial No/Batch: S210504

Revision: E

Inspector:

Exp Date:

Instructions: Various STC's

Date: 08/30/19

Plex 8/29/19 4:03 PM Dart.Guerin.Kimberley

				Packaging 2 - 29 - B4B	
				Packaging 2 - 30 - B4B	
				Packaging 2 - 31 - B4B	
				Packaging 2 - 32 - B4B	
				Packaging 2 - 33 - B4B	
				Packaging 2 - 34 - B4B	
				Packaging 2 - 35 - B4B	
				Packaging 2 - 36 - B4B	
130 QC 6	4 pcs	8/30/19	0.00 0.00	QC 6 - 9	
				QC 6 - 68	DAS
				QC 6 - 61	61
				QC 6 - 40	9-39
				QC 6 - 81	
180 Packaging 3-1 - Stock - B4B	4 pcs	8/30/19	0.00 0.00	Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	PC 9-39
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
190 QC 21 - SA	4 pcs	8/30/19	0.00 0.00	QC 21 - SA - 21	DAS
				QC 21 - SA - 70	21 SEP 13 2019
				QC 21 - SA - 53	9-39 SEP 13 2019

Part Op 110 - ISSUE PO TO METEC, NOTE ALODINE AND PAINT AS PER QSI 005
 Descriptions: 120 - (Receive & Inspect for Damage & Mat'l Certs) Ensure C of C is attach
 130 - (QC6- All purchased or subcontracted products)
 180 - (Identify as per dwg & Stock Location: _____)
 190 - (QC21- Final Inspection - Work Order Release)

Job BOM				
Part / Item	Component Name	Quantity	Operation	Container
D2423	Lug Extrusion	.5200 ft (.13 ea)	110-Purchasing	S 210 502
D3910-1P	Crosstube Lug	4 pcs (1 ea)	110-Purchasing	S 210 498

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
110-Purchasing	D2423	1	436	0
	D3910-1P	4	0	0

Part Specifications					
Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Crosstube Lug	4.450Inches ± 0.030	4.480 4.420		
2	Crosstube Lug	1.380Inches ± 0.030	1.410 1.350		
3	Crosstube Lug	0.270Inches ± 0.030	0.300 0.240	reference	
4	Crosstube Lug	0.310Inches ± 0.030	0.340 0.280		
5	Crosstube Lug	0.735Inches ± 0.010	0.745 0.725	reference	
6	Crosstube Lug	2.200Inches ± 0.030	2.230 2.170		
7	Crosstube Lug	0.375Inches ± 0.010	0.385 0.365		
8	Crosstube Lug	0.191Inches + 0.005 - 0.001	0.196 0.190	Diameter	
9	Crosstube Lug	0.380Inches ± 0.030	0.410 0.350	Radius	
10	Crosstube Lug	0.380Inches ± 0.030	0.410 0.350		
11	Crosstube Lug	0.625Inches ± 0.010	0.635 0.615		
12	Crosstube Lug	0.375Inches ± 0.010	0.385 0.365		
13	Crosstube Lug	3.700Inches ± 0.010	3.710 3.690		
14	Crosstube Lug	0.625Inches ± 0.010	0.635 0.615		
15	Crosstube Lug	0.375Inches ± 0.010	0.385 0.365		
16	Crosstube Lug	0.340Inches ± 0.030	0.370 0.310	Radius	

Plex 8/29/19 4:03 PM Dart.Guerin.Kimberley



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB044007



REVISED

Supplier: MEM001-VC
Metec Metal Technology Inc.
20 Terry Fox Drive PO Box 781
Vankleek Hill
ON
K0B 1R0 Canada
Phone: 613 678 3957
Fax: 613 678 3956

Attention: Walz, Shigi

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB044007

PO Date: 7/15/19

Due Date: 7/19/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Lavoie, Chantal
Phone: 613-623-5200 Ext: 242
Fax: 613-632-1053
clavoie@dartaero.com

Via: Ground

Pymt Terms: Net 60

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	197698	D2230-1P			Lug As Per Dwg D2230 Rev. G Alodine and Paint as per QSI 005	Received	-	7/19/19	200 pcs	200 pcs	0 pcs	\$17.40/pcs	\$0.00
2	197666	D3910-1P			Crosstube Lug As Per Dwg D3910 Rev. E Alodine and Paint as pe QSI 005	Received	-	7/19/19	50 pcs	50 pcs	0 pcs	\$17.40/pcs	\$0.00
3	199738	D3910-1P			Crosstube Lug : Various STC's As Per Dwg D3910 Rev. E Alodine and Paint as pe QSI 005	Firmed	-	8/30/19	4 pcs	0 pcs	4 pcs	\$0.01/pcs	\$0.04

4X AUG 30 2019

DAS 61

Grand Total: \$0.04



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER
POHB044007



Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Procurement Quality Clauses

A005 RIGHT OF ENTRY

A007 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION MAINTAINED BY SUPPLIER)

A012 CHEMICAL AND PHYSICAL TEST REPORTS

A016 PERSONNEL QUALIFICATION

A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)

A026 CERTIFICATION OF MATERIAL CONFORMANCE

A041 QUALITY MANAGEMENT SYSTEM

A042 DART NOTIFICATION BY SUPPLIER

A043 RETENTION OF QUALITY DOCUMENT

A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM

A049 SUPPLIER AWARENESS

Plex 8/29/19 4:05 PM Dart.Guerin.Kimberley

Packing List

Bill Dart Aerospace Ltd.
To: 1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada

Ship Dart Aerospace Ltd.
To: 1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada

Shipment No: 25686
Shipment Date: 12-Aug-2019
Ship Via: Pick up at METEC
Order Number: 4007
Order Date: 07/15/2019

Customer Code: DART
Phone: (613) 632-9577
PO Number: POHB044007
Terms: Net 60 Days

Quantity						Description	Revision	Job Number
Item	Open	Shipped	B/O	Canceled	Unit			
3	4	4	0	0	EA	DART-D3910-1P Crosstube Lug, alodined and painted as per QSI 005	E	4007-03

replacement for returned lugs

DAS
61
P-82

RECEIVED

AUG 29 2019

DART AEROSPACE LTD.

The delivered goods must be inspected upon receipt to confirm compliance. Should there be discrepancies please notify METEC within 30 days of delivery. The goods are otherwise deemed accepted.

Received In Good Order By
Dart Aerospace Ltd.

Page 1 of 1



20 Terry Fox Drive, Vankleek Hill, Ontario K0B 1R0

Tel. (613) 678-3957 & (613) 678-2782 Fax (613) 678-3956 metec@metec.ca

CERTIFICATE OF CONFORMITY

SOLD TO:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ont.
K6A 1K7

SHIPPED TO:

same

Quantity	Part Number	Part Name	Dwg Rev.#	Material Batch #	Paint Batch #	P.O. Number
4	D3910-1	Crosstube Lug	E	S141186	018609-1	HB044007

MATERIAL: supplied by DART

DAS
61
-89

We hereby certify that the above parts were made in conformance with applicable drawings.

METEC Metal Technology Inc.

Heather Nixon

Vankleek Hill, August 12, 2019

DATE: May 3/19	MATERIAL BATCH #: S141186
PART NAME: 3910-1 Cross Tube Lug	PAINT BATCH #: 018609-1
DWG #: REV. E	JOB #: 3706-01
QUANTITY TO MAKE:	

[illegible]

NOTES Packing List # 25579
25683

Job Traveler - Shop Copy

Metec Metal Technology Inc #25170

Job Number: 3706-01



Sold To: METEC PRODUCTION
Vankleek Hill, ON K0B 1R0

MAY 06 2019

Ship To: METEC PRODUCTION

Order No: 3706 Dated: 04-Apr-19 Quote No:
Customer: METEC PO Num: STOCK
Ship Via: Priority: 50
Part Number: DART-D3910-1P Product Code: ALL but ATT, HOOF, PFAFF
Description: Crosstube Lug, alodined and painted as per QSI 005
Alt Part No: Revision: E Dated:
Drawing Number: Master Job No:
Start Date: 22-Apr-19 Finish Date: 09-May-19 Phone:
Contact: Fax:
Total Qty Open: 100 EA Qty Posted: 0 EA Qty To Make: 100 EA **x100**

B 912032
5141186

Job Notes

Order Quantity	Release Type	Release Quantity	Due Date	Ship Date	Packing List	MFG Job No	Destination Job No	Comments
----------------	--------------	------------------	----------	-----------	--------------	------------	--------------------	----------

Delivery Schedule

100	STOCK	100	0-May-19
-----	-------	-----	----------

Routing

Routed By:

Quantity 100

Step No	Work Cntr / Vendor	Setup Time	Cycle Time	Total Time	Pieces Per Hour	Scheduled Start	Scheduled End	Run Quantity
10	HAAS MILL	120.00	7.00 M	13.67 H	9	22-Apr-19	23-Apr-19	100

HAAS#1
Machine part as per DWG#
Please bring parts to next Work Center

Record Scrap parts HERE: 6

Initials: Q.L Amy Date: 04/17/19



100

DART AEROSPACE LTD FIRST ARTICLE INSPECTION CHECKLIST		Work Order:		Inspection Dwg: D3910-1	
Description: UBE LUG		Part Num:		D3910-1	
OFFICE		# TO INSPECT: 13		Material Batch # 5191186	
# ORDERED:				QUALITY CONTROL	

Drawing Dimension	Tolerance	Actual Dimension	O	Actual Dimension	O	Actual Dimension	O	Actual Dimension	O	Actual Dimension	O	Actual Dimension	O	Actual Dimension	O
SAMPLE 1 (QC)															
4.45	4.420-4.480	4.454		4.455		4.453		4.454		4.453		4.454		4.454	
1.38	1.350-1.410	1.379		1.380		1.378		1.380		1.380		1.380		1.380	
0.31	0.280-0.340	0.340		0.307		0.307		0.305		0.307		0.305		0.308	
R1.20	1.170-1.230														
Ø0.257	0.257-0.262														
3.700	3.690-3.710	3.698		3.699		3.698		3.698		3.697		3.698		3.698	
0.625	0.620-0.630	0.628		0.629		0.623		0.621		0.623		0.623		0.622	
0.375	0.365-0.385	0.373		0.374		0.375		0.373		0.373		0.373		0.375	
Engraving Depth 0.010+-0.005															
Tool Tip Radius 0.015+-0.005															
Edges, Corners & Holes De-Burred															
INSPECTED BY: [Signature]															
DATE: 04/16/14															
SAMPLE 7															
4.45	4.420-4.480	4.454		4.454		4.456		4.455		4.456		4.456		4.455	
1.38	1.350-1.410	1.380		1.379		1.380		1.380		1.380		1.380		1.380	
0.31	0.280-0.340	0.307		0.307		0.308		0.307		0.307		0.307		0.308	
R1.20	1.170-1.230														
Ø0.257	0.257-0.262														
3.700	3.690-3.710	3.698		3.698		3.697		3.698		3.697		3.697		3.698	
0.625	0.620-0.630	0.622		0.621		0.622		0.622		0.622		0.622		0.622	
0.375	0.365-0.385	0.375		0.375		0.377		0.377		0.376		0.375		0.376	
Engraving Depth 0.010+-0.005															
Tool Tip Radius 0.015+-0.005															
Edges, Corners & Holes De-Burred															
INSPECTED BY: [Signature]															
DATE: 04/16/14															
SAMPLE 11															
4.45	4.420-4.480	4.454		4.454		4.456		4.455		4.456		4.456		4.455	
1.38	1.350-1.410	1.380		1.379		1.380		1.380		1.380		1.380		1.380	
0.31	0.280-0.340	0.307		0.307		0.308		0.307		0.307		0.307		0.308	
R1.20	1.170-1.230														
Ø0.257	0.257-0.262														
3.700	3.690-3.710	3.698		3.698		3.697		3.698		3.697		3.697		3.698	
0.625	0.620-0.630	0.622		0.621		0.622		0.622		0.622		0.622		0.622	
0.375	0.365-0.385	0.375		0.375		0.377		0.377		0.376		0.375		0.376	
Engraving Depth 0.010+-0.005															
Tool Tip Radius 0.015+-0.005															
Edges, Corners & Holes De-Burred															
INSPECTED BY: [Signature]															
DATE: 04/17/14															
SAMPLE 12															
4.45	4.420-4.480	4.454		4.454		4.456		4.455		4.456		4.456		4.455	
1.38	1.350-1.410	1.380		1.379		1.380		1.380		1.380		1.380		1.380	
0.31	0.280-0.340	0.307		0.307		0.308		0.307		0.307		0.307		0.308	
R1.20	1.170-1.230														
Ø0.257	0.257-0.262														
3.700	3.690-3.710	3.698		3.698		3.697		3.698		3.697		3.697		3.698	
0.625	0.620-0.630	0.622		0.621		0.622		0.622		0.622		0.622		0.622	
0.375	0.365-0.385	0.375		0.375		0.377		0.377		0.376		0.375		0.376	
Engraving Depth 0.010+-0.005															
Tool Tip Radius 0.015+-0.005															
Edges, Corners & Holes De-Burred															
INSPECTED BY: [Signature]															
DATE: 04/17/14															
SAMPLE 13															
4.45	4.420-4.480	4.454		4.454		4.456		4.455		4.456		4.456		4.455	
1.38	1.350-1.410	1.380		1.379		1.380		1.380		1.380		1.380		1.380	
0.31	0.280-0.340	0.307		0.307		0.308		0.307		0.307		0.307		0.308	
R1.20	1.170-1.230														
Ø0.257	0.257-0.262														
3.700	3.690-3.710	3.698		3.698		3.697		3.698		3.697		3.697		3.698	
0.625	0.620-0.630	0.622		0.621		0.622		0.622		0.622		0.622		0.622	
0.375	0.365-0.385	0.375		0.375		0.377		0.377		0.376		0.375		0.376	
Engraving Depth 0.010+-0.005															
Tool Tip Radius 0.015+-0.005															
Edges, Corners & Holes De-Burred															
INSPECTED BY: [Signature]															
DATE: 04/17/14															

DART AEROSPACE LTD FIRST ARTICLE INSPECTION CHECKLIST

Work Order:

D3910-1

Inspection Dwg: D3910-1

Rev: E

Description: UBE LUG

Part Num:

D3910-1

Material Batch#

OFFICE

TO INSPECT:

ORDERED:

QUALITY CONTROL

Drawing Dimension	Tolerance	Actual Dimension	O K	Actual Dimension	O K	Actual Dimension	O K	Actual Dimension	O K	Actual Dimension	O K	Actual Dimension	O K	Actual Dimension	O K
		SAMPLE 1	O K	SAMPLE 2	O K	SAMPLE 3	O K	SAMPLE 4	O K	SAMPLE 5	O K	SAMPLE 6	O K	SAMPLE 7	O K
4.45	4.420-4.480	4.456													
1.38	1.350-1.410	1.380													
0.31	0.280-0.340	0.307													
R1.20	1.170-1.230	✓													
Ø0.257	0.257-0.262	✓													
3.700	3.690-3.710	3.698													
0.625	0.620-0.630	0.623													
0.375	0.365-0.385	0.375													
2.20	2.170-2.230	2.201													
Ø0.191	0.191-0.196	✓													
0.375	0.365-0.385	0.375													
0.38	0.350-0.410	0.374													
0.625	0.620-0.630	0.623													
Engraving Depth 0.010+-0.005		✓													
Tool Tip Radius 0.015+-0.005		✓													
Edges, Corners & Holes De-Burred															
INSPECTED BY:		Q.V													
DATE:		04/17/14													
		SAMPLE 7		SAMPLE 8		SAMPLE 9		SAMPLE 10		SAMPLE 11		SAMPLE 12		SAMPLE 13	
4.45	4.420-4.480														
1.38	1.350-1.410														
0.31	0.280-0.340														
R1.20	1.170-1.230														
Ø0.257	0.257-0.262														
3.700	3.690-3.710														
0.625	0.620-0.630														
0.375	0.365-0.385														
2.20	2.170-2.230														
Ø0.191	0.191-0.196														
0.375	0.365-0.385														
0.38	0.350-0.410														
0.625	0.620-0.630														
Engraving Depth 0.010+-0.005															
Tool Tip Radius 0.015+-0.005															
Edges, Corners & Holes De-Burred															
INSPECTED BY:															
DATE:															

Method of Inspection:

Vernier calipers, Radius gauge, Visual and tactile inspection for burrs.

LOT SIZE: SAMPLE SIZE

2 to 13: All 14 to 150: 13 151 to 280: 20 281 to 500: 29 501 to 1200: 34

NOTES:



Certificat de Conformité / Certificate of Compliance



2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

018609- 1

Livré à / Ship to

METEC

20 TERRY FOX DRIVE, P.O. BOX 7
 VANKLEEK HILL, ON, K0B1R0
 CANADA

Tel.: 613-678-3957 Fax.: 613-678-3956

Client / Customer:

METEC

20 TERRY FOX DRIVE, P.O. BOX 7
 VANKLEEK HILL, ON, K0B1R0
 CANADA

BUYER:

Date expédition Ship date		Créé Par Generated By		Transport / No de Compte Carrier / Acc. No.		Bon de commande Client Customer Purchase Order No.			
25-Apr-2019		SVETLANA DORZHIYEVA				31543			
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)			CATG. U/M	Quantités / Quantities			
						Contn. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/
1	DART-D3910-3P Rev.E	CROSSTUBE LUG ALODINE 1200S AND PAINT POWDER WHITE AS PER QS1005SPÉC.			PAINT	90	90	0	0
					CH				
2	DART-D3910-1P Rev.	DART-D3910-1P ALODINE 1200S AND PAINT POWDER WHITE AS PER QS1005SPÉC.			PAINT	100	100	0	0
					CH				

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.